WHAT IS CLAIMED IS:

1. A process for producing a reflection type liquid crystal display device, comprising the steps of:

(a) depositing a low resistance metal layer on an insulating substrate to form a source/drain wiring by using a first mask;

(b) depositing a silicon layer, gate insulating film and gate electrode layer on said insulating substrate having said source/drain wiring pattern formed thereon in this order to form a thin film transistor region and a gate wiring by using a second mask;

(c) depositing a passivation film on said insulating substrate having said source/drain wiring, said thin film transistor region and said gate wiring formed thereon to form an opening for the transistor through said passivation film at a predetermined position on said source wiring by using a third mask;

(d) depositing an interlayer insulating film on said passivation film, forming a rough surface of said interlayer insulating film to form an opening for the transistor through said interlayer insulating film at a position corresponding to the opening formed in said passivation film by using a fourth mask; and

(e) depositing a reflective metal over the rough surface of said interlayer insulating film to form by using a fifth mask a reflection electrode being extended and electrically connected to said source wiring through the openings for the transistor in said passivation film and said interlayer insulating film.

2. A process for producing a reflection type liquid crystal display device,

comprising the steps of

(a) depositing a low resistance metal layer on an insulating substrate to form a source/drain wiring by using a first mask;

(b) depositing a silicon layer, gate insulating film and gate electrode layer on said insulating substrate having said source/drain wiring formed in this order to form a thin film transistor region and a gate wiring by using a second mask;

(c) depositing a passivation film and an interlayer insulating film on said insulating substrate having said source/drain wiring, said thin film transistor region and said gate wiring formed to form an opening for the transistor through said interlayer insulating film, in a predetermined position on said source wiring by using a third mask;

(d) forming an opening for the transistor through said passivation film in a position corresponding to the opening for the transistor in said interlayer insulating film by using said interlayer insulating film as a mask;

(e) depositing a reflective metal over the rough surface of said interlayer insulating film to form by using a fifth mask a reflection electrode being extended through the respective openings for the transistor in said passivation film and said interlayer insulating film and electrically connected to said source wiring.

3. The process as defined in claim 1 wherein the formation of the rough surface of said interlayer insulating film and the opening for the transistor is conducted by halftone exposure or two-times exposure.

4. The process as defined in claim 3, wherein the formation of the rough

surface of said interlayer insulating film and the opening for the transistor is conducted by using an exposure mask having transmissivity being controlled.

5. A process as defined in claim 1 further comprising the steps of :

forming a capacitor electrode when said source/drain wirings are formed;

forming said gate wiring on said insulating substrate having said capacitor electrode formed when forming said thin film transistor region and said gate wiring are formed;

forming an opening for a storage capacitor penetrating through said interlayer insulating film and said passivation film in a position on said capacitor electrode when the openings for the transistor is formed through said interlayer insulating film and said passivation film; and

forming said reflection electrode extending through the openings for the storage capacitance in said passivation film and in said interlayer insulating film and being electrically connected to said capacitor electrode when said reflection electrode is formed.

6. The process as defined in claim 1 further comprising the steps of :

forming a source/drain wiring for a protective circuit when said source/drain wirings are formed;

forming a protective electrode and protective wiring when said thin film transistor region and said gate wiring are formed;

forming said passivation film and said interlayer insulating film on said insulating substrate having the source/drain wiring, said protective electrode and said protective wiring for said protective circuit formed

thereon;

forming openings for the protection circuit extending through said passivation film and said interlayer insulating film in predetermined positions on the source/drain wiring, said protective electrode and said protective wiring for said protective circuit penetrating through said interlayer insulating film and said passivation film when respective openings for the transistor of said interlayer insulating film and said passivation film are formed; and

forming a first shortening wiring extending through an opening for said protective circuit for electrically connecting the source/drain wiring for said protective circuit to said protective wiring by said reflective metal and a second shortening wiring extending through an opening for said protective circuit for electrically connecting said drain wiring to said protective electrode when said reflection electrode is formed.

7. The process as defined in claim 1 further comprising the step of heat treating at least the rough surface of said interlayer insulating film before depositing said reflective metal and after forming the rough surface of said interlayer insulating film.

8. The process as defined in claim 1 further comprising the step of treating at least said source/drain wiring with PH_{33} after said source/drain wiring has been formed and prior to successive deposition of said silicon layer, gate insulating film and gate electrode layer.

9. A reflection type liquid crystal display device comprising:

a source and drain wiring formed in position on an insulating substrate;

a thin film transistor and gate electrode wiring formed in a stack in which a silicon layer, a gate insulating film and a gate electrode layer are stacked in this order as viewed in a direction substantially normal to said substrate on predetermined portions of the surface of said source/drain electrodes and said insulating substrate;

a passivation film formed on said insulating substrate having said source/drain wiring, said thin film transistor region and said gate wiring formed thereon, said passivation film having an opening for the transistor penetrating through said passivation film on a predetermined position on said source wiring;

an interlayer insulating film formed on said passivation film and having has a rough surface and an opening for the transistor formed to penetrate through said interlayer insulating film in a position corresponding to the opening for the transistor formed in said passivation film, simultaneously with the formation of the rough surface; and

a reflection electrode being formed on said interlayer insulating film, said reflection electrode having a roughness over the surface of said interlayer insulating film and extending through respective openings of said passivation film and said interlayer insulating film to be electrically connected to said source wiring.

10. A reflection type liquid crystal display device as defined in claim 9 comprising:

a capacitor electrode formed in a position on an insulating substrate simultaneously with the formation of said source/drain wiring; and

a storage capacitor formed simultaneously with the formation of

said thin film transistor in a stack in which a silicon layer, gate insulating film and gate electrode layer are stacked in a direction normal to said substrate in a position on said insulating substrate including said capacitor electrode;

wherein said passivation film formed on said insulating substrate having said storage capacitor formed thereon, has an opening for the storage capacitor formed simultaneously with the formation of the opening for the transistor in said passivation film, said opening for the storage capacitor penetrating through said passivation film in a predetermined position on said storage capacitor electrode;

said interlayer insulating film has an opening for the storage capacitor formed simultaneously with the formation of said rough surface so that it extends through said interlayer film; and

said reflection electrode extends through respective openings for the storage capacitor in said passivation film and said interlayer insulating film to be electrically connected to said capacitor electrode.

11. A reflection type liquid crystal display device as defined in claim 9 comprising:

a source and drain wiring for the protective circuit formed in a position on said insulating substrate simultaneously with the formation of said source/drain wiring; and

a protective electrode and protective wiring formed simultaneously with the formation of said thin film transistor in a stack in which a silicon layer, gate insulating film and gate electrode metal layer are successively stacked in a direction substantially normal to said substrate at a

predetermined position on said insulating substrate including a source/drain wiring for said protective circuit;

said passivation film formed on said insulating substrate having said protective electrode and said protective wiring and having an opening for the protective circuit which is formed simultaneously with the formation of the opening for the transistor in said passivation film and extends through said passivation film at predetermined positions on said drain wiring, said source/drain wiring of said protective circuit, said protective electrode and said protective wiring;

said interlayer insulating film having an opening for the protective circuit formed simultaneously with the formation of said rough surface in position corresponding to the opening for the protective circuit in said passivation film, an opening for the protective circuit penetrating through said interlayer insulating film;

a first shortening wiring formed at a position on said interlayer insulating film simultaneously with the formation of said reflection electrode and extending through respective openings for the protective circuit in said passivation film and said interlayer insulating film to be electrically connected to said source/drain wirings for said protective circuit and said protective wiring; and

a second shortening wiring formed at a position on said interlayer insulating film simultaneously with the formation of said reflection electrode and extending through respective openings for the protective circuit in said passivation film and said interlayer insulating film to be electrically connected to said drain wiring for said protective circuit and

said protective electrode.

12. A reflection type liquid crystal display device as defined in claim 9 wherein said source/drain wiring, said capacitor electrode or said source/drain wiring for said protective circuit is treated with PH_3.

13. A process for producing an active matrix substrate for use in a liquid crystal display device on which a reflector electrode formed on an insulating film has a contact to a source electrode of a switch transistor arranged on a cross region of a gate bus line and a drain bus line, comprising the steps of:

depositing a photo-sensitive insulating film adapted for an interface to said reflector electrode on the substrate having said switch transistor, said drain bus line and said gate bus line formed thereon; and

forming a rough interface of said photo-sensitive layer and a contact hole penetrating through said photo-sensitive layer by using one of a halftone exposure method and two-times exposure method.

14. The process as defined in claim 13 further comprising the steps of:

forming a contact hole extending to said source electrode through an insulating film inserted between said substrate and said photo-sensitive layer by using said photo-sensitive layer as an etching mask.

15. The process as defined in claim 13 further comprising the steps of:

depositing a silicon layer, an gate insulating film and a gate electrode layer on an insulating substrate having a source and drain electrode pattern formed thereon;

forming a pattern of a gate electrode and a gate bus line by using a photolithography and etching process from said gate electrode layer,

accompanied by successive etchings of said gate insulating film and said silicon layer to form a staggered structure of said switch transistor.

16. A process for producing an active matrix substrate for use in a liquid crystal display device on which a switch transistor of a staggered structure type is arranged on a cross point of a gate bus line and a drain bus line, comprising the steps of:

depositing a silicon layer, an gate insulating film and a gate electrode layer on an insulating substrate having a source and drain electrode pattern formed thereon;

forming a pattern of a gate electrode and a gate bus line using a photolithography and etching process from said gate electrode layer, accompanied by successive etchings of said gate insulating film and said silicon layer to form a staggered structure of said switch transistor.